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### REMARKS

This response is intended as a full and complete response to the final Office Action mailed April 20, 2007. In the Office Action, the Examiner notes that claims 1, 2 and 4-36 are pending and rejected. By this response, Applicants overcome the various rejections by amendment to the claims, as well as, or in the alternative, by various arguments that are presented.

In view of the foregoing amendments and the following discussion, Applicants submit that all of the claims now pending in the application satisfy the requirements of 35 U.S.C. §§112 and 103. Therefore, Applicants believe that this application is now in condition for allowance.

It is to be understood that Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant response with amendments.

### REJECTIONS

#### 35 U.S.C. §112

The Examiner has rejected claims 1-17 under 35 U.S.C. §112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, Examiner rejected, for lack of antecedent basis, the limitation "said EIADs" in claim 1. Applicant respectfully disagrees with Examiner. The recitation "at least one enhanced integrated access device (EIAD)" provides antecedent basis for a plurality of EIADs. Although, Applicant disagrees with Examiner, Applicant has amended claim 1 to recite "said EIAD" to overcome Examiner's rejection.

Therefore, the rejection should be withdrawn.

#### 35 U.S.C. §103

#### Claims 1-2, 4-20, 25-30, 33-36

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The Examiner has rejected claims 1-2, 4-20, 25-30, and 33-36 under 35 U.S.C. §103(a) as being unpatentable over Chanda et al. (US 2002/0095498, hereinafter "Chanda") in view of Piro et al. (U.S. Patent 6,856,676, hereinafter "Piro") and further in view of Duffield et al. (U.S. Patent 6,912,232, hereinafter "Duffield"). The rejection is traversed.

Applicants' claim 1 recites:

Apparatus, comprising:

a plurality of internet protocol (IP) services aggregation switches for communicating between respective access networks and a core network, each of said IP services aggregation switches communicating with at least one respective VPN customer user, wherein said IP services aggregation switches communicate with said at least one VPN customer user via at least one enhanced integrated access device (EIAD); and

a dynamic virtual private network (VPN) manager, for providing customer network management and policy server functions, including a user interface enabling remote management of a VPN by a VPN customer user;

said VPN having at least one of a defined quality of service (QoS) parameter, a defined security parameter and a corresponding billing rate, at least one of said QoS parameter and said security parameter being adapted in response to user commands provided to said dynamic VPN manager by said VPN customer user;

said dynamic VPN manager adapting at least one of said IP services aggregation switches and at least one of said EIAD to provide a bidirectional QoS for at least one IP flow.

Examiner referred to "Pancha" when making his argument. However, "Pancha" was not cited and Applicant presumes Examiner meant "Chanda." If Applicant is in error Examiner is encouraged to call Applicant's attorney of record, listed at the end of this response.

Chanda fails to teach or suggest Applicants' claim 1, as a whole. Specifically, Chanda fails to teach or suggest "wherein said IP services aggregation switches communicate with said at least one VPN customer user via at least one enhanced integrated access device (EIAD)" as disclosed in at least Applicant's claim 1. Applicant teaches an enhanced integrated access device (IAD) which "has the combined functionality of an access router as well as the capability to provide converged access to next generation network services...."

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Further, "[t]he Enhanced IAD is the demarcation point for all services provided by the ISP and provides interfaces to support these services..... The Enhanced IAD is responsible for aggregating and converting these services into the format required by the access network." (See Detailed Description, page 10, lines 9-20).

Further, Applicant's IAD "also supports IP services such as routing, IP, Qos, IP, VPN, Encryption, and Tunneling." It provides key IP services on IP flows that are flowing away from the customer and towards the access network. The Enhanced IAD's IP, VPN, and QoS configurations can be managed by a policy server and the Enhanced IAD also collects statistics that can be used for billing purposes and SLA verification and management." (See Detailed Description, page 10, lines 21-26).

Conversely, Chanda discloses an improved IAD which is located at and coupled to client or customer premises equipment. (See FIG. 1; page 2, lines 26-27). The IAD cooperates with gateway device 102 to regulate the data flow to a particular client. (See page 8, paragraph 73, lines 13-15).

Applicant submits the improved interface access device disclosed in Chanda is far removed from the enhanced interface device disclosed by Applicant. For example, nowhere in Chanda does it discuss an IAD that "also supports IP services such as routing, IP, Qos, IP, VPN, Encryption, and Tunneling." Nor does it disclose an Enhanced IAD that also collects statistics that can be used for billing.

MPEP 2173.02. requires claims to be interpreted in light of disclosure, prior art, and knowledge of one skilled in the art. Interpreted in this manner Chanda is devoid of any teaching or suggestion of Applicants' invention of "IP services aggregation switches communicate with said at least one VPN customer user via at least one enhanced integrated access device (EIAD)." as claimed in independent claim 1.

Pirot and Duffield alone or in combination fail to bridge the substantial gap between Chanda and Applicants' invention. Namely, Pirot and Duffield, alone or in combination, fail to teach or suggest the limitations of "wherein said IP services

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aggregation switches communicate with said at least one VPN customer user via at least one enhanced integrated access device (EIAD)" as claimed in Applicants' claim 1.

In general, Pirot teaches controlling and managing voice and data services in a telecommunications network. As taught in Pirot, a service management subsystem provides service management tools for managing the services, and a service creation subsystem in communication with the service management subsystem for creating the service logic of the services. The service management subsystem includes a service provisioning function for creating and modifying service subscribers and associated profiles, providing service configuration to modify service profiles, providing service activation to launch services, and providing service planning. (Pirot, Col. 7, Line 61 – Col. 8, Line 2).

Pirot, however, fails to teach or suggest Applicants' invention of claim 1. Pirot fails to teach or suggest an enhanced IAD. Pirot also fails to teach or suggest providing any bidirectional quality of service for an IP flow, much less a dynamic VPN manager adapting at least one IP services aggregation switch and at least one EIAD to provide a bidirectional QoS for at least one IP flow, as claimed in Applicants' claim 1.

In general, Duffield discloses efficient utilization of network resources in Virtual Private Networks (VPNs). As taught in Duffield, a VPN achieves network resource allocation efficiency by exploiting resource sharing possibilities using multiplexing routing paths between endpoints and dynamic resource allocation techniques that permit real-time resource allocation resizing. Duffield further discloses that, when a VPN is established, routing paths between endpoints of the VPN are optimized for multiplexing opportunities so that resource allocations between nodes along the routing paths within the IP network are reduced to a minimum. (Duffield, Abstract).

Duffield, however, fails to teach or suggest Applicants' invention of claim 1. Duffield fails to teach or suggest an enhanced IAD. Duffield also fails to teach or suggest providing any bidirectional quality of service for an IP flow, much less

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a dynamic VPN manager adapting at least one IP services aggregation switch and at least one EIAD to provide a bidirectional QoS for at least one IP flow, as claimed in Applicants' claim 1. Thus, Duffield fails to teach or suggest Applicants' claim 1, as a whole.

Since Pirot and Duffield each fail to teach or suggest an IAD, any permissible combination of Pirot and Duffield must also fail to teach or suggest an EIAD. Similarly, since Pirot and Duffield each fail to teach or suggest providing bidirectional QoS for an IP flow, any permissible combination of Duffield and Pirot must also fail to teach or suggest providing bidirectional QoS for an IP flow. Therefore, Pirot and Duffield, alone or in any permissible combination, fail to teach or suggest a dynamic VPN manager adapting at least one IP services aggregation switch and at least one EIAD to provide bidirectional QoS for at least one IP flow, as claimed in Applicants' claim 1.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Thus, it is impermissible to focus either on the "gist" or "core" of the invention, Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 USPQ 416, 420 (Fed. Cir. 1986) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988). Chanda, Duffield and Pirot, alone or in any permissible combination, fail to teach or suggest Applicants' claim 1, as a whole.

As such, Applicants submit that Independent claim 1 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, independent claims 18, 25, and 35 include limitations similar to the limitations of claim 1. Therefore, for at least the same reasons as discussed with respect to independent claim 1, claims 18, 25, and 35 are also not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Claims 2, 4-17, 19-20, 26-30, 33-34 and 36 depend directly or indirectly from

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independent claims 1, 18, 25, and 35 and recite additional limitations thereof. Accordingly, for at least the same reasons as discussed above, Applicants submit that these dependent claims are also non-obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Therefore, Applicants respectfully request that the Examiner's rejection be withdrawn.

#### Claims 21-24, 31-32

The Examiner has rejected claims 21-24 and 31-32 under 35 U.S.C. §103(a) as being unpatentable over Chanda, Duffield and Pirot as applied to claims 18 and 25 above and further in view of Forslow (U.S. 2005/0088977, hereinafter "Forslow"). Applicants respectfully traverse the rejection.

Claims 21-24 and 31-32 depend, either directly or indirectly, from independent claim 18. For at least the reasons discussed hereinabove, Pirot and Duffield, alone or in combination, fail to teach or suggest Applicants' invention of at least claim 18, as a whole.

Furthermore, Forslow fails to bridge the substantial gap as between Duffield and Pirot and Applicants' invention.

In general, Forslow teaches a network-based mobile workgroup system. As taught in Forslow, the network-based mobile workgroup system enables a mobile user to select server resources. (Forslow, Abstract). In particular, as taught in Forslow, the network-based mobile workgroup system provides secure data access to mobile clients. Furthermore, users within a mobile VPN may communicate using intra-domain, inter-domain, or remote-access routing. (Forslow, Pg. 4, Para. 0065, 0067).

Forslow, however, fails to teach or suggest Applicants' invention of at least claims 18, as a whole. Forslow is devoid of any teaching or suggestion of a dynamic VPN manager adapting at least one IP services aggregation switch and at least one EIAD to provide a bidirectional QoS for at least one IP flow, as claimed in Applicants' claim 18.

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As such, Chanda, Pirot, Duffield and Forslow, alone or in any combination, fail to teach or suggest Applicants' claim 18, as a whole. Accordingly, Applicants submit that independent claim 18 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claims 21-24 and 31-32 depend, directly or indirectly, from independent claim 18 and recite additional limitations thereof. Therefore, at least for the same reasons as discussed above, Applicants submit that these dependent claims are also non-obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Therefore, the rejection should be withdrawn.

#### CONCLUSION

Thus, Applicants submit that all of the claims presently in the application, are patentable. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Michael Bentley at (732) 383-1434 or Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

6/18/07

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